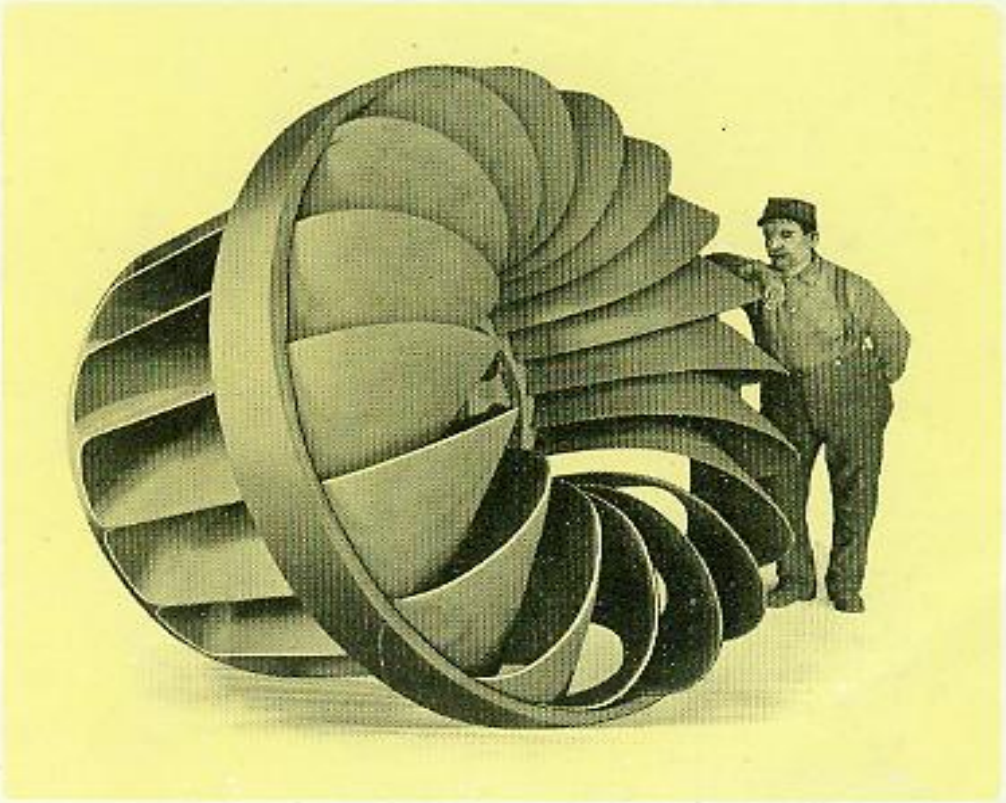
:: TRUMP ::

HYDRAULIC TURBINES

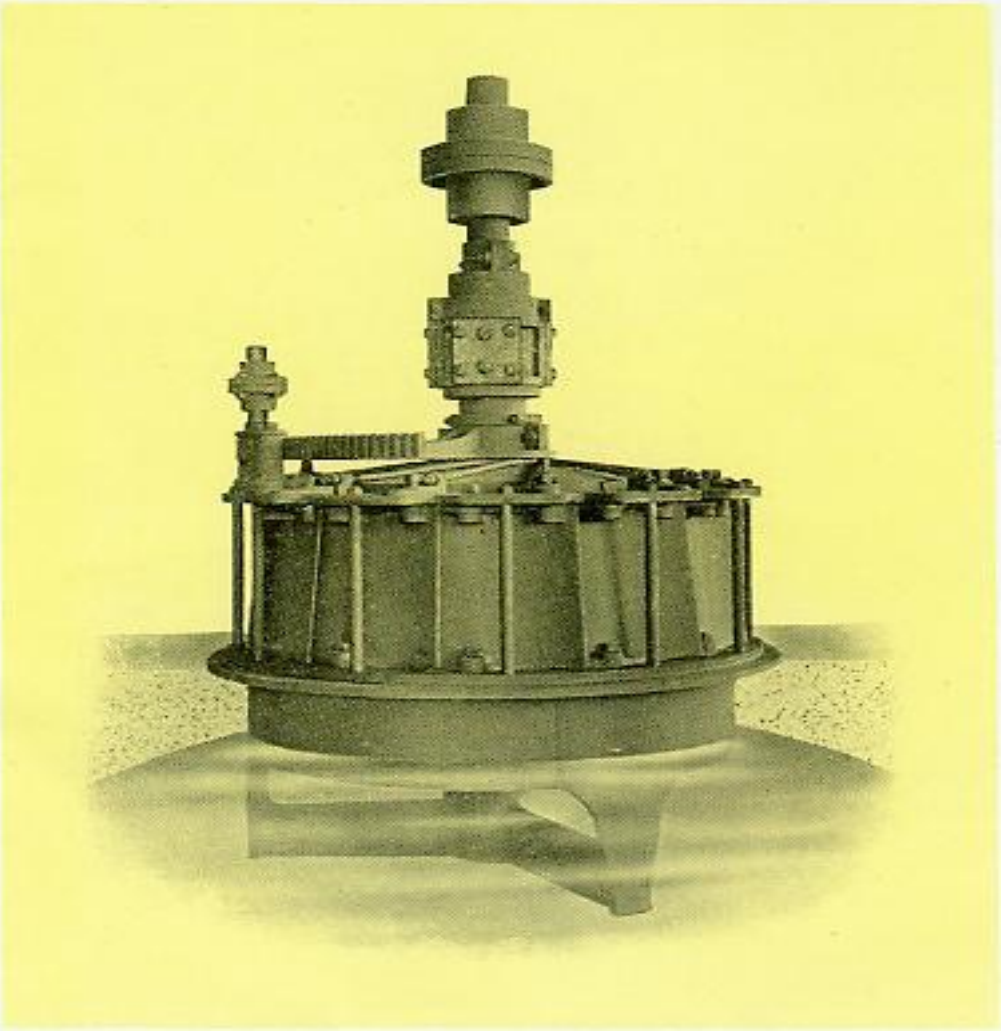
THE TRUMP MFG. CO.
SPRINGFIELD, OHIO

TRUMP
HYDRAULIC TURBINES



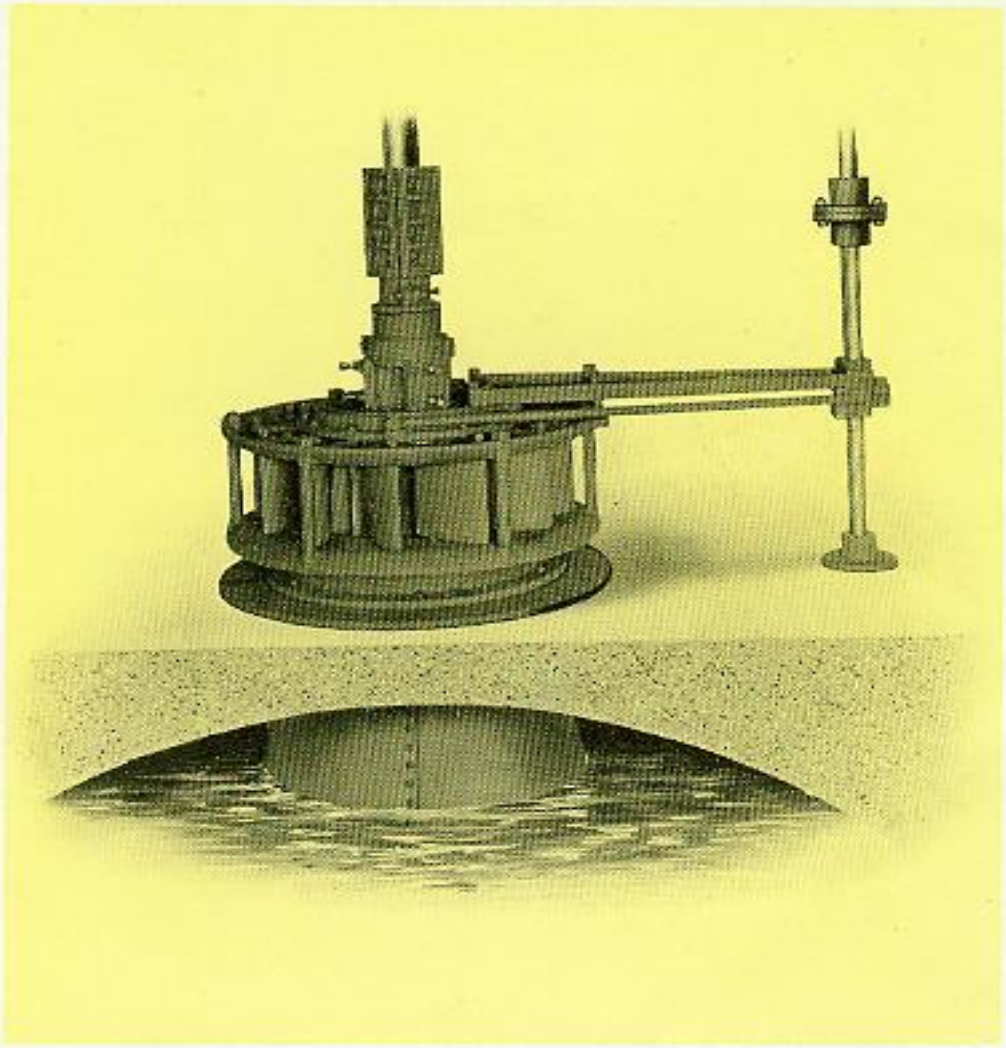
The Trump Manufatcuring Company
Springfield, Ohio
1918

Standard Vertical Trump Turbine



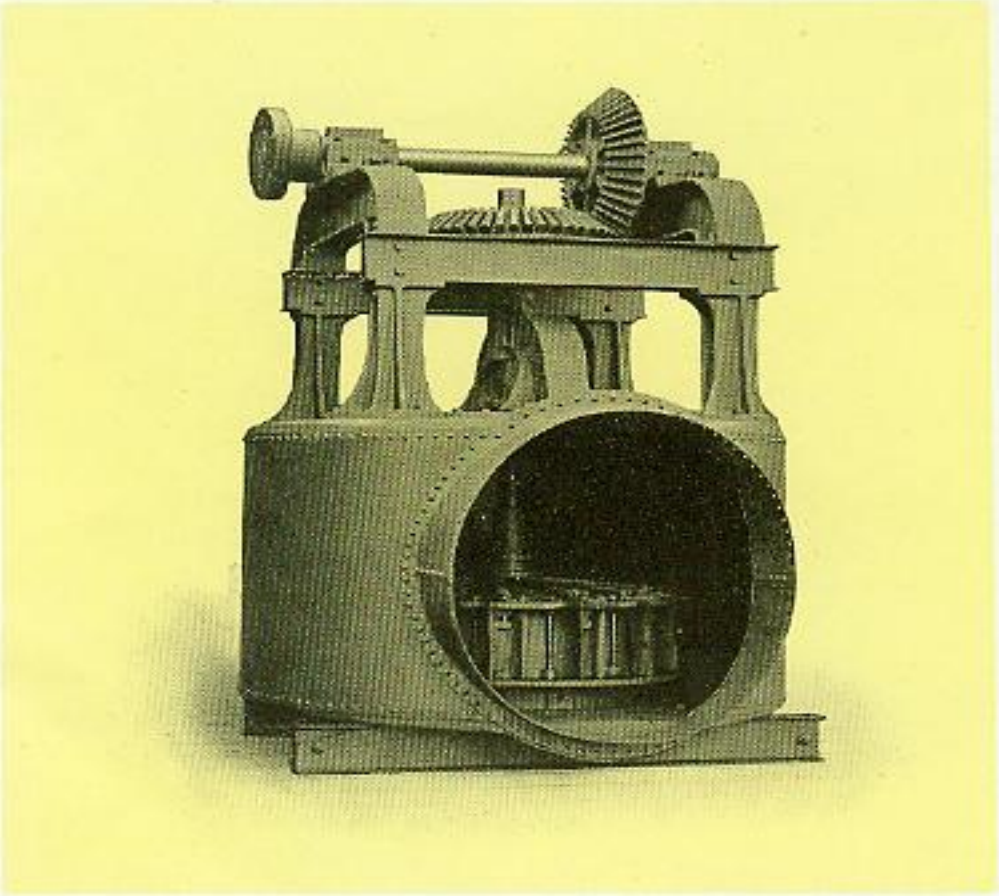
TURBINES of the Standard Trump Type have been developed for low and medium heads and for moderate speed. Under extreme low heads, and particularly under back water conditions, the Standard Trump Turbine has no equal.

Vertical High Power Speed Trump Turbine



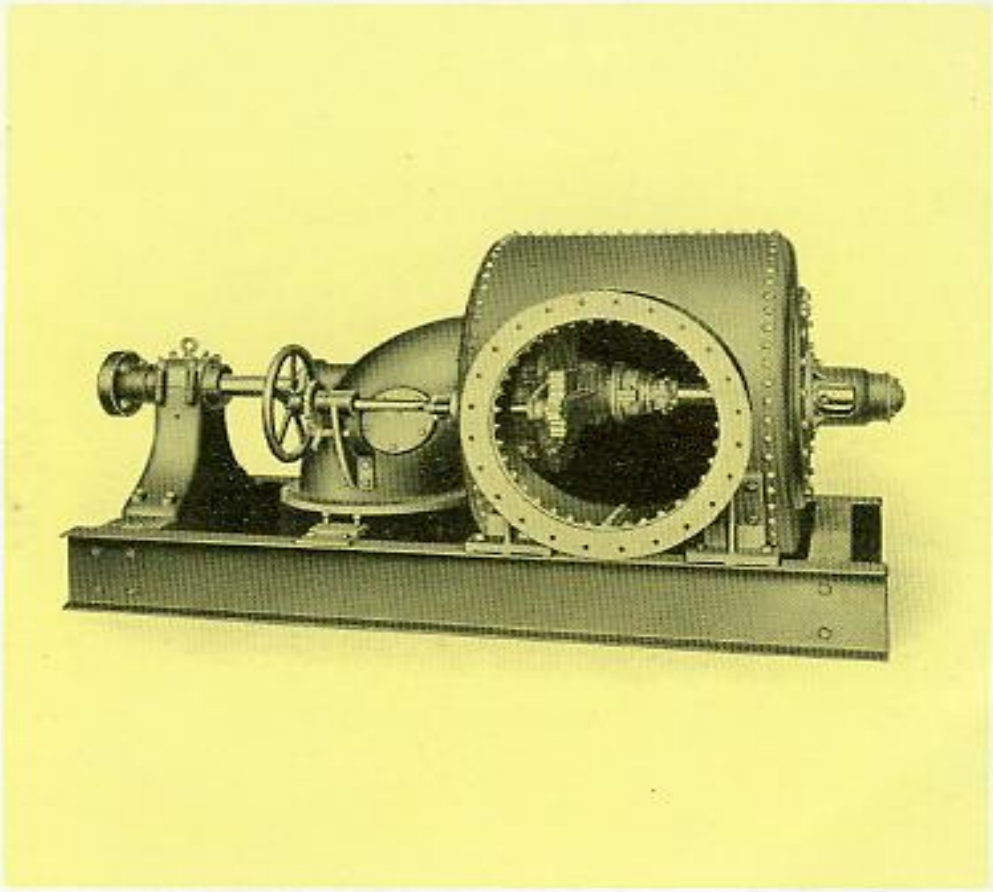
TURBINES of the Trump High Power, High Speed type have been developed for various heads. This type of Turbine is particularly adapted for driving vertical generators where same can be mounted above, and directly connected to the vertical Turbine shaft.

Vertical Turbine in Steel Flume



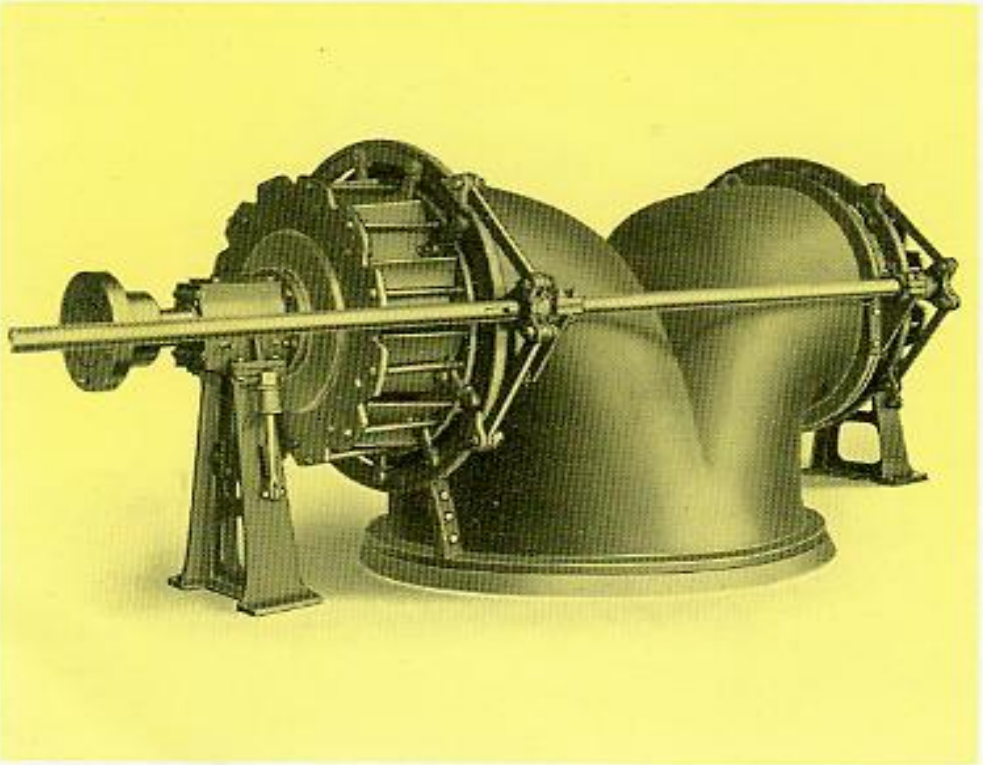
IT is sometimes desirable to install turbines in steel flumes where the location of the Turbine installation prohibits the use of other modes of setting. Turbines mounted in steel flumes are particularly adapted for the displacement of old wooden flumes, which have become rotted and leaky.

Horizontal Turbine in Steel Flume



TURBINES as shown above are developed for direct connection, or are provided with pulley for belt drive. Turbines can be mounted in casings either singly or in pairs. The inlet for water entrance can be arranged to suit the condition under which Turbine is set. Single Horizontal Turbines, like the above, are provided with an improved method of counter-balancing the end thrust.

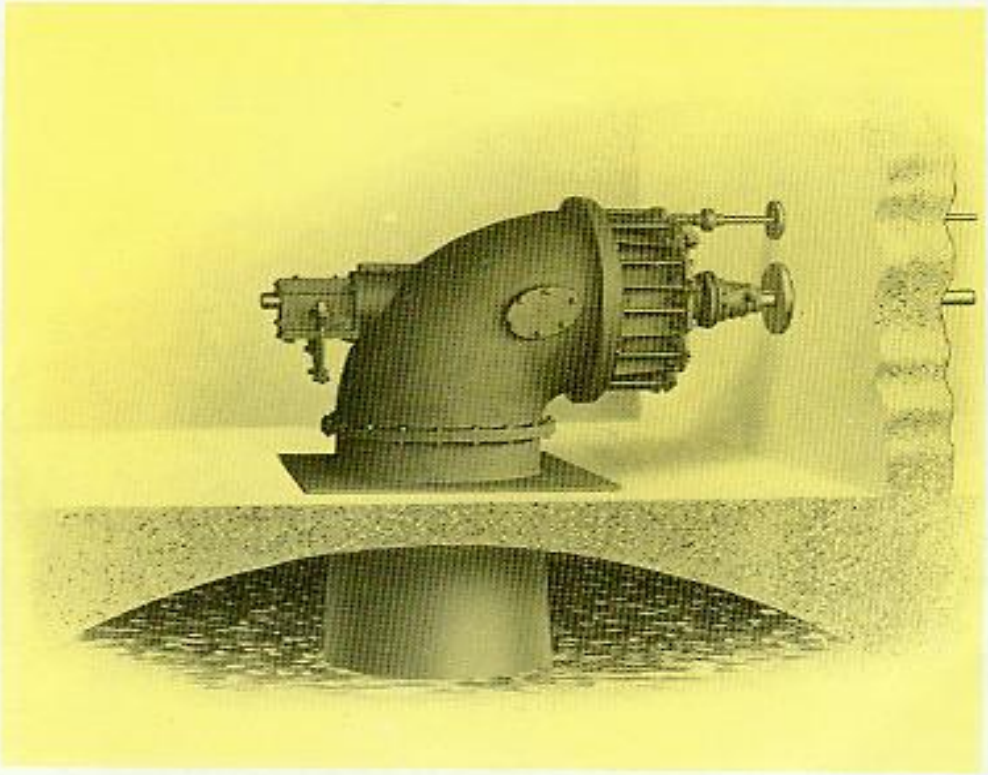
Pair of Horizontal Turbines for Open Flume



TURBINES of the above type can be furnished in single pairs or multiples thereof, and are designed for mounting in open flume, arranged for either direct connection or belt drive to the machinery driven.

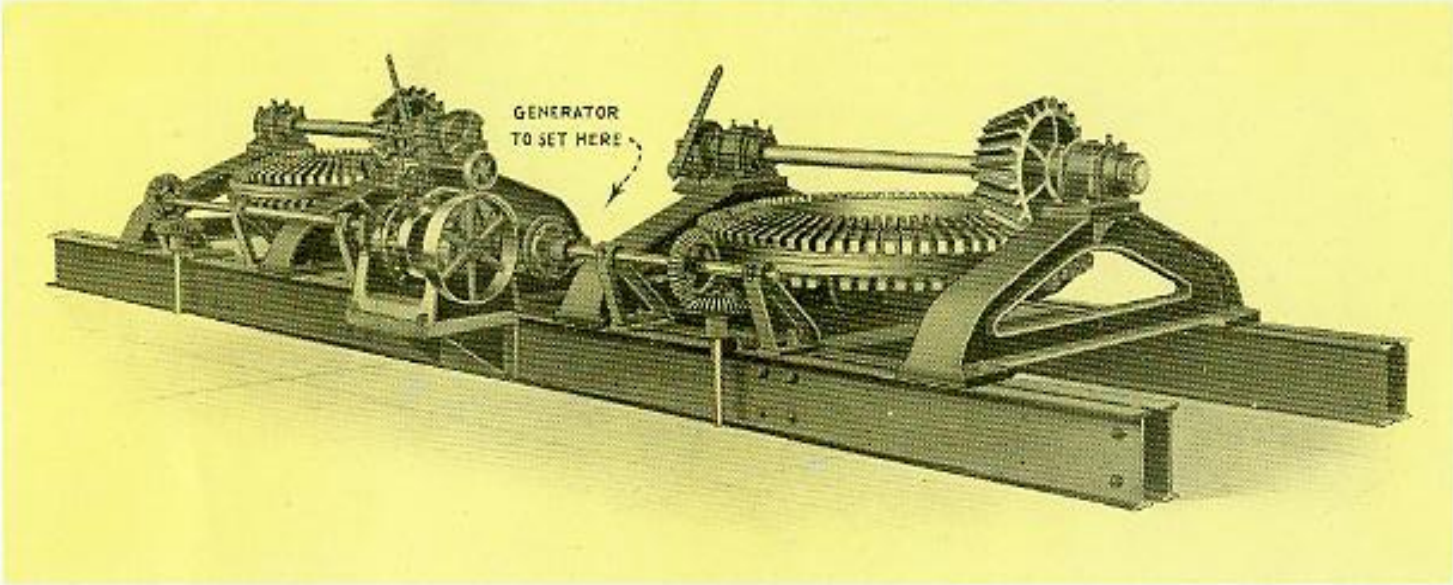
All bearings used under water with Turbines as above are of the Trump patented alignable type, same can be brought into proper alignment without the necessity of going into flume or removing the water therefrom.

Single Horizontal Turbine for Open Flume



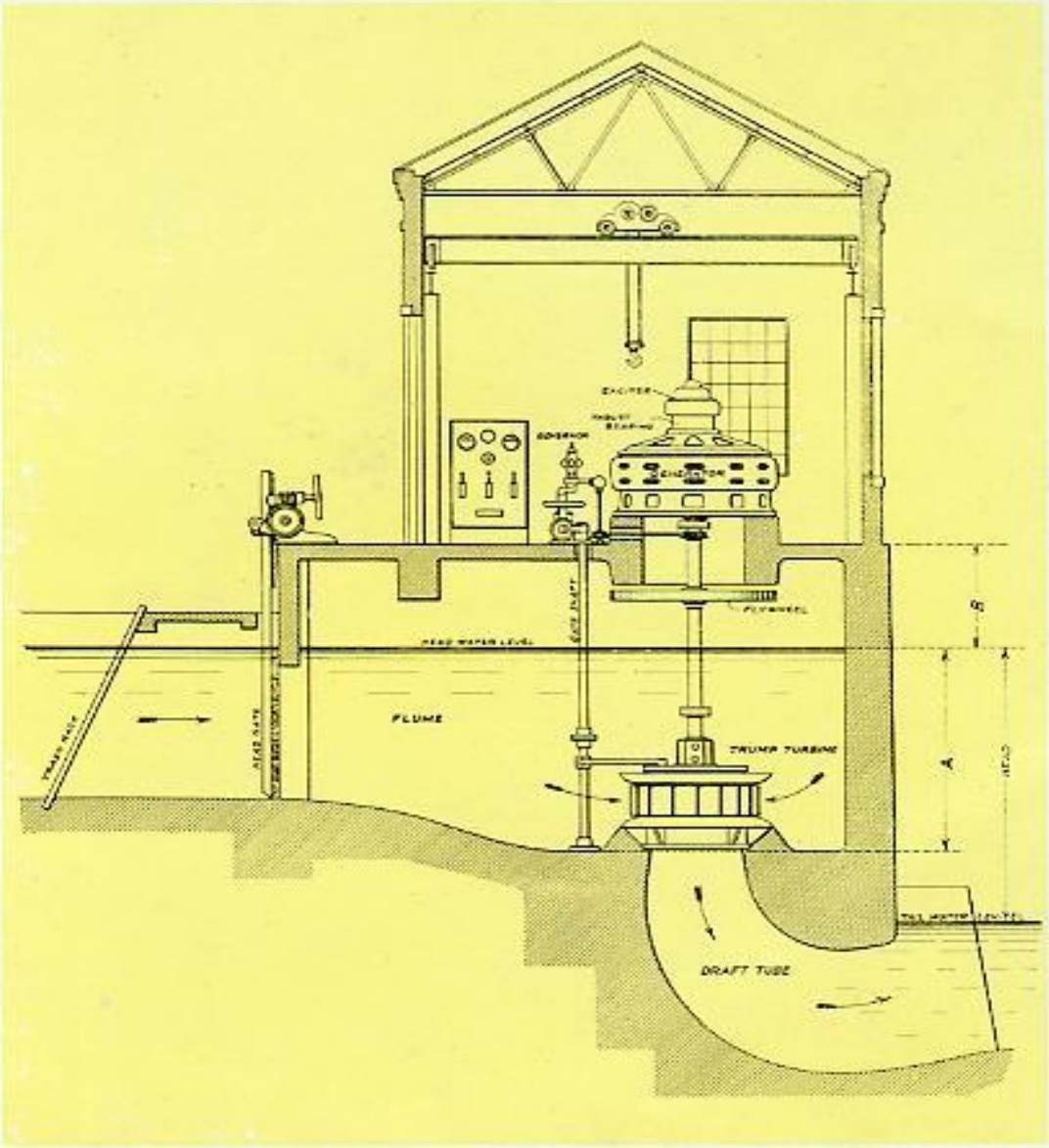
A VERY simple setting for moderate power development where conditions will permit is shown above. The Turbine is mounted upon cast iron quarter turn discharge elbow. The general arrangement of the setting can be modified somewhat to suit conditions.

Gearing and Harness Work

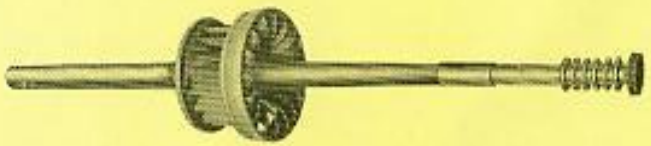


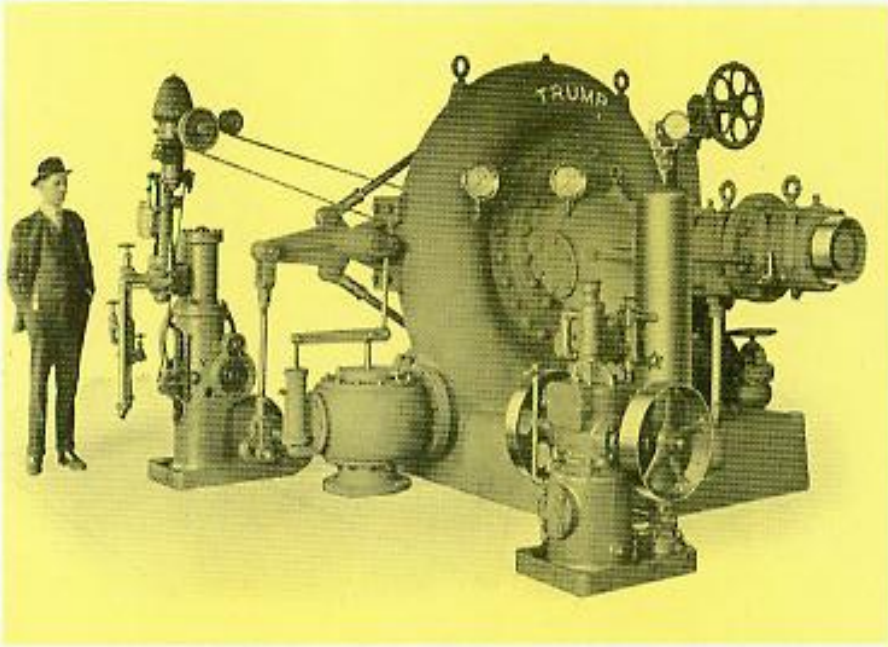
WHERE the power of a vertical Turbine or Turbines is transmitted thru the medium of bevel mortise gearing, we use very heavy and substantial construction throughout. All gears carry an ample margin for safety. All bearings used are of the Ring Oiling, Ball and Socket, Self-aligning type. The construction throughout is most rugged and built for long life and service.

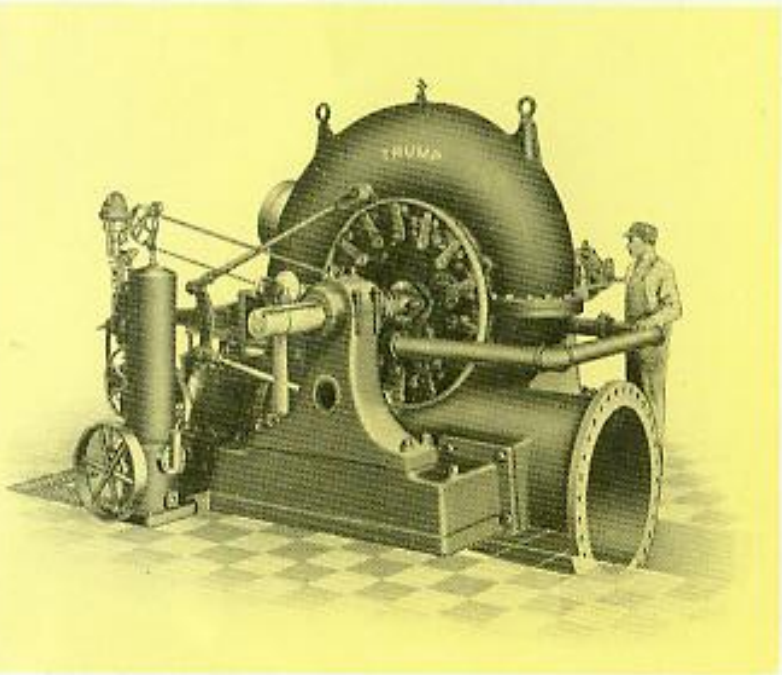
Correct Setting, Vertical Turbine Directly Connected to Electric Generator



WE are pioneers in designing vertical turbines for direct connection to electric generator. The above unit shows in general a correct setting for this particular type of installation. We build turbines of High Power and High Speed characteristics expressly for this class of work.







TRUMP Turbines of the spiral case type are of particular high grade construction and are adaptable to moderate and high heads. Units of this class are highly efficient. The gate operating mechanism is located on the outside of the casing, is accessible and in full view at all times. The two units shown above were designed and built for the United States Reclamation Service. Four (4) additional units for the Government now under construction.

The Importance of Water Power Development

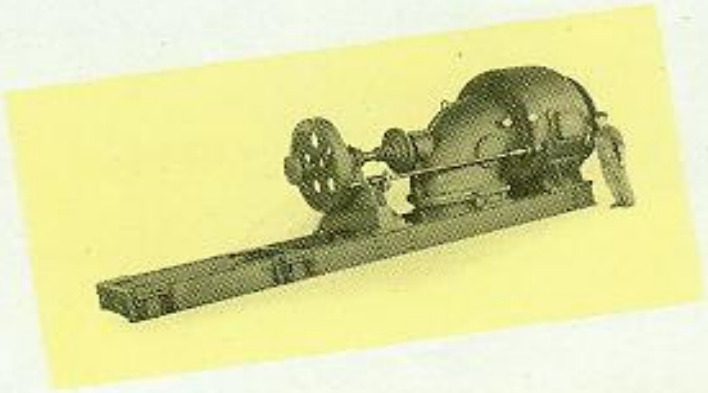
THE development of WATER POWER is most essential. When you consider that thru the development of this great natural resource we save to the nation millions of tons of coal, to say nothing of other valuable fuels consumed in the development of power.

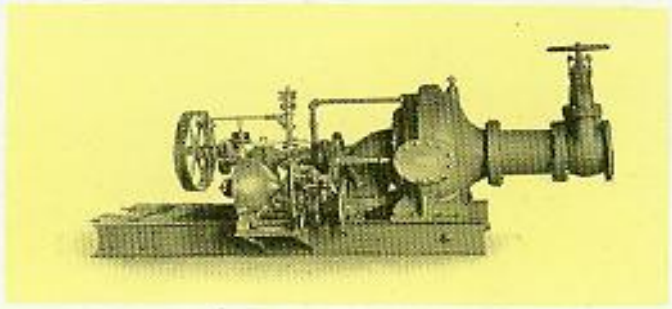
There exists in this country today millions of horse power in water power undeveloped. It is, therefore, of the utmost importance not only to develop our natural resource to the greatest possible extent, but to develop same efficiently. Thousands of horse power in water goes to waste each day thru inefficient and obsolete turbines.

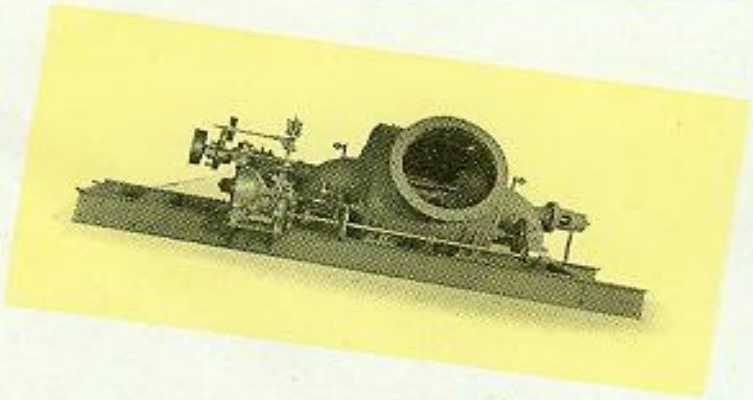
To-day is the day of conservation. Let us, therefore, not only resolve to lend our moral support to that development which CONSERVES and at the same time SERVES, but let us DEVELOP EFFICIENTLY.

POWER is the foundation upon which industry stands. POWER may be developed in two ways, either by consumption of fuel or by the development of our natural resources. It is, therefore, axiomatic that if we conserve fuel in the development of water power we have produced a most essential and important economy. Thru the use of TRUMP TURBINES, as your prime mover in the development of water power, you are assured the greatest possible economy and efficiency.

Some Special Types of Turbines

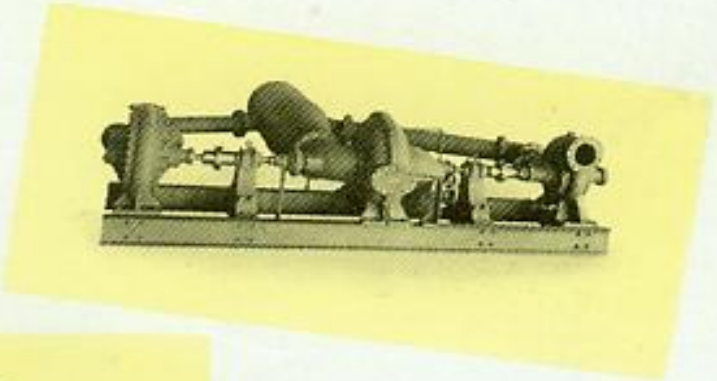


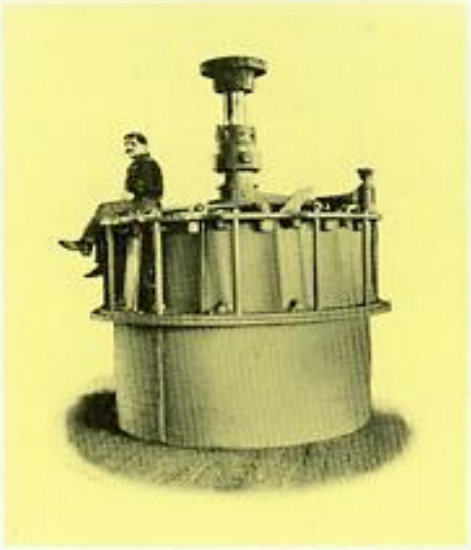


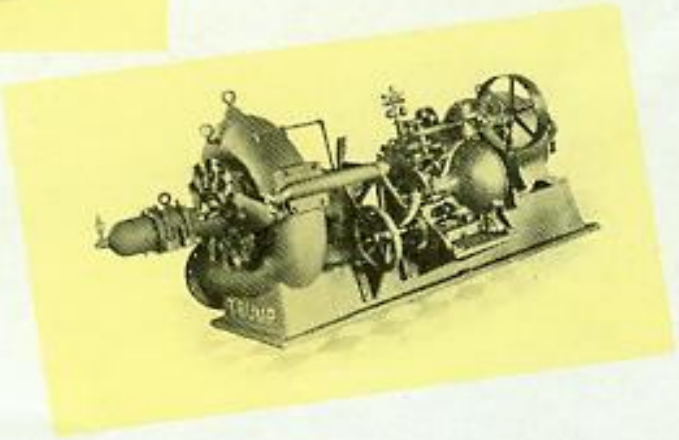


WE specialize in the development of hydraulic turbines to suit the conditions so as to enable the purchaser to obtain the greatest economy from his water power. The small illustrations shown above cover in a limited way turbines which have been designed for locations having distinct peculiarities.

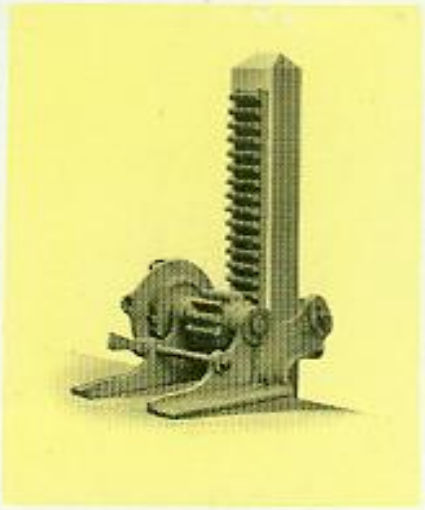
Some Special Types of Turbines



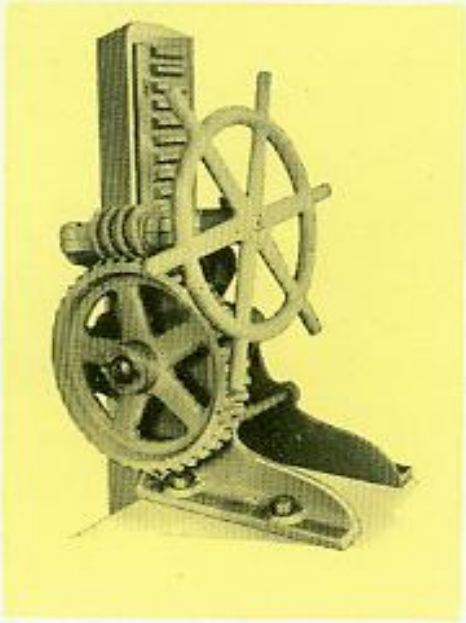




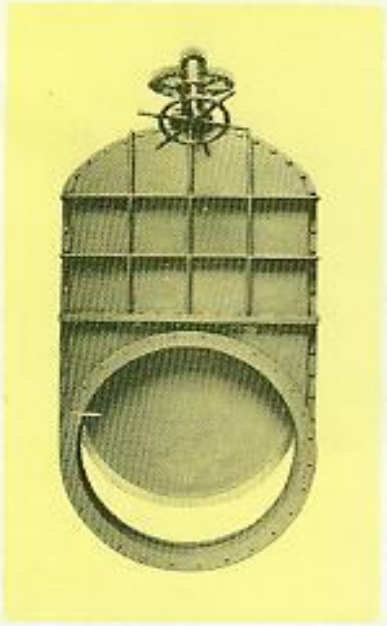
WE are prepared to furnish turbines to displace old and obsolete makes, also turbines that have been originally furnished where the builder has given little heed to the customers welfare. We specialize in the adaptation of modern and more efficient equipment under such conditions.



Lever Operated Head Gate Hoist



Worm Geared Head Gate Hoist



Iron Body Bronze Mounted Gate Valve

We manufacture head gate hoists, sluice gates, and gate valves.

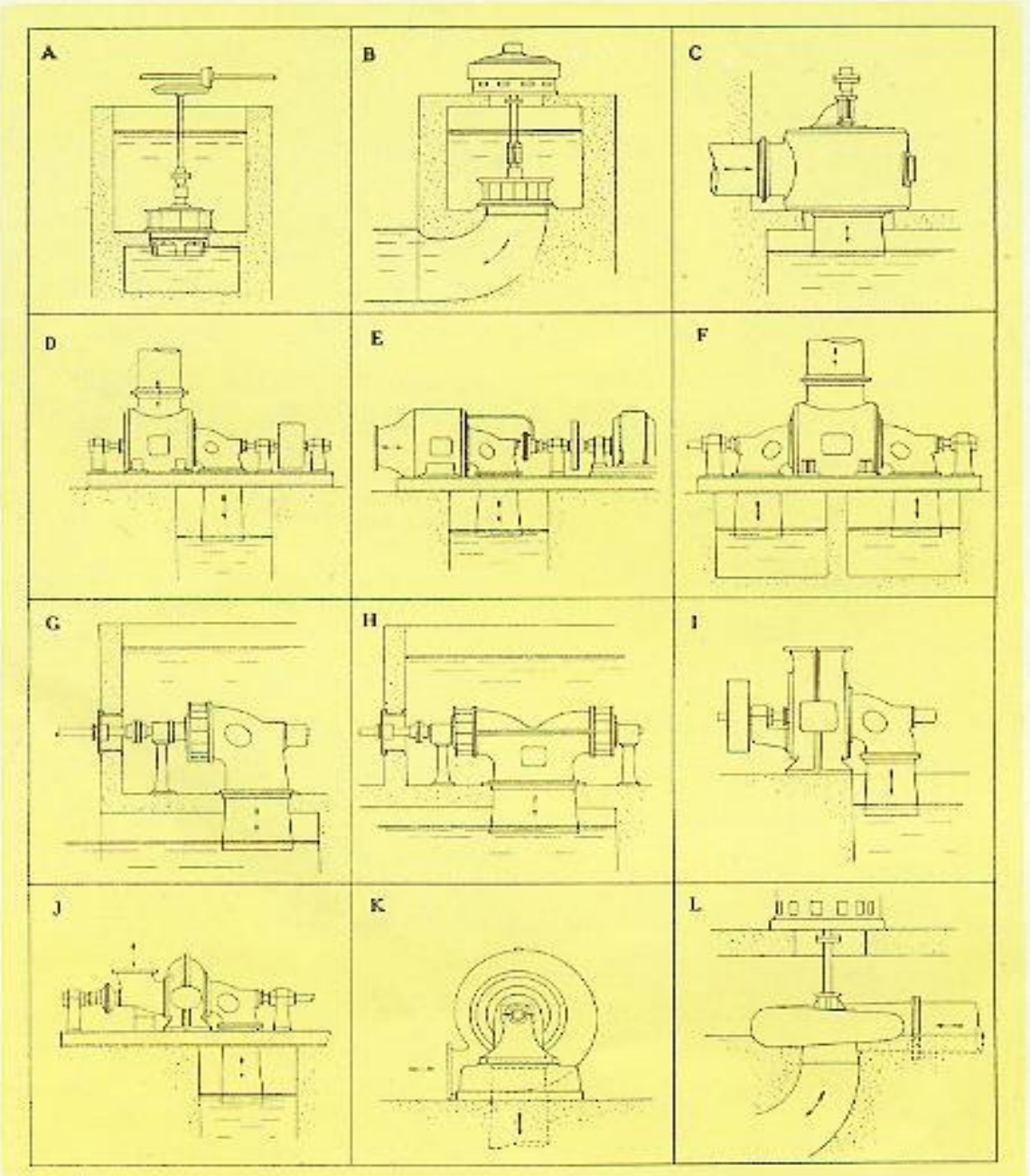
TRUMP turbines have been before the public for over a quarter of a century. We do not believe there is a civilized country on the face of the globe wherein Trump Turbines are not being used. Trump Turbines are always to be found in the more exacting developments. It will be a pleasure for us to go fully and completely into any matters pertaining to water power with you and recommend that which we consider best under your particular condition.

In making inquiry, give us the following:

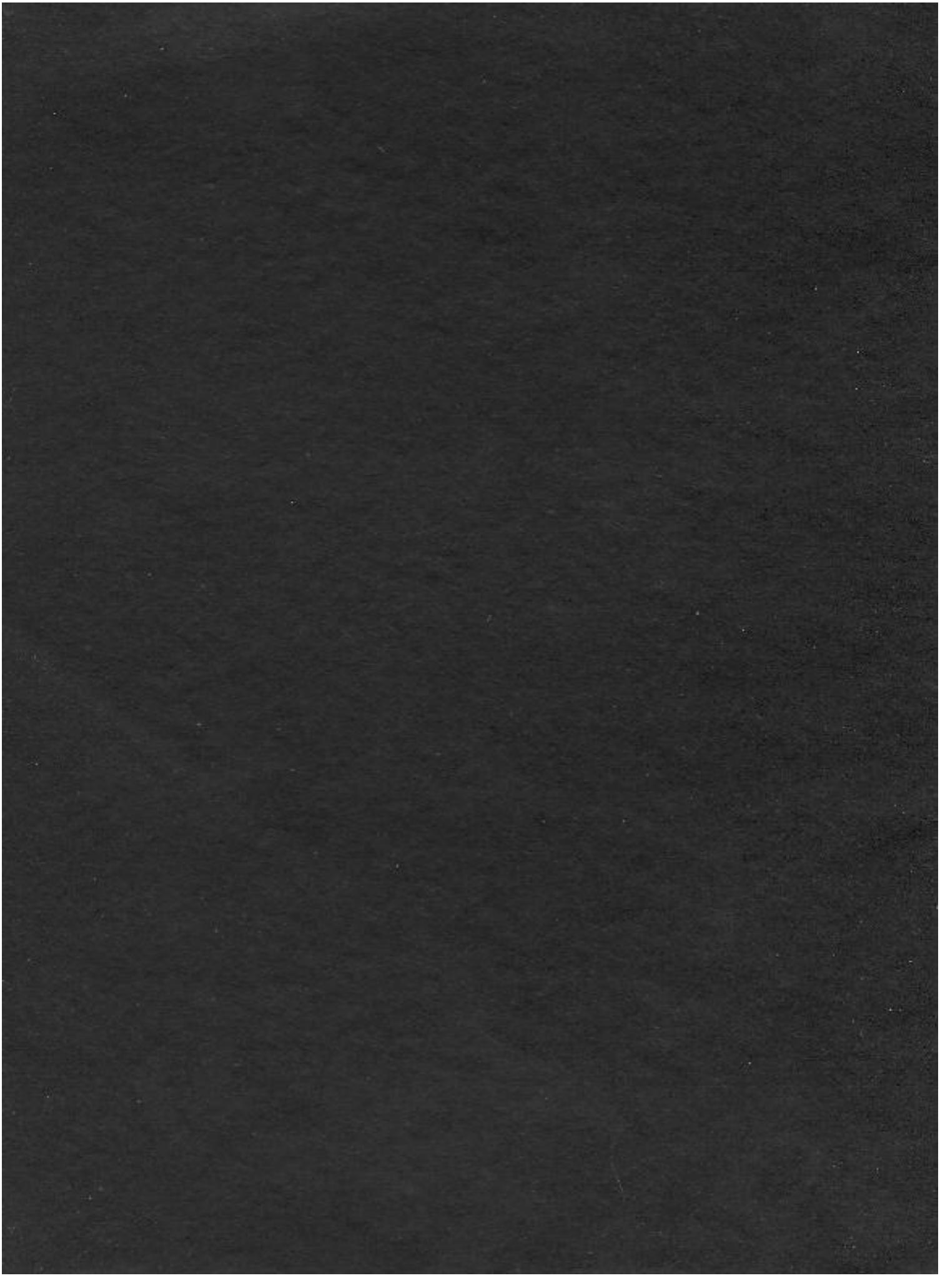
Working Head in Feet.
Amount of Power Desired.
Number Cubic Feet of Water per Minute.
Kind of Machinery to be driven.

You are respectfully referred to Page 16 where we show several different ways of installing hydraulic Turbines. Indicate to us after studying this page about what type of turbine would best meet your requirements.

Different Ways of Installing Hydraulic Turbines



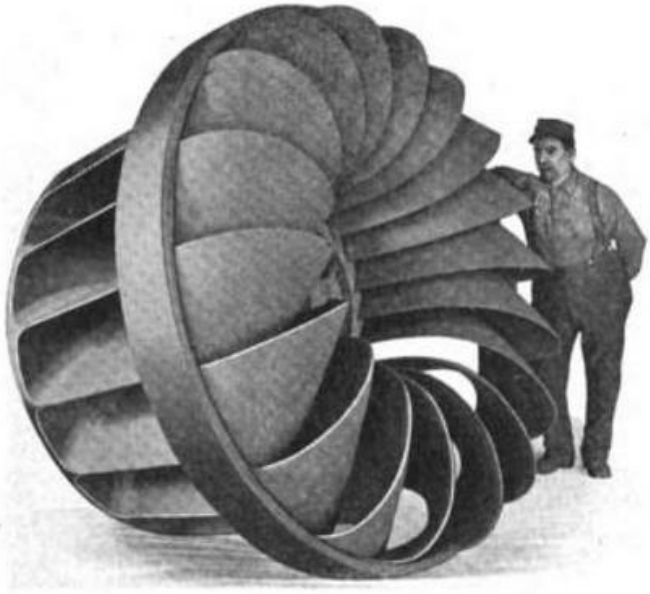
The illustrations above show standard settings—numerous modifications are quite permissable.



Ads:

Through the use of the modern turbine in the development of horsepower the manufacturer is assured of the greatest possible economy and efficiency.

Operators of manufacturing plants using water power will be interested in an American turbine, known as the "Trump" and built by the Trump Manufacturing Company, Springfield, Ohio, U. S. A. Trump turbines are built in all types and styles for heads, ranging as low as 6' up to 300' (one meter to 100 meters). These engines have been manufactured by the Trump company for over a quarter of a century, and are to be found in use throughout



Runner or rotating element of standard Trump hydraulic turbine used in the development of water power

The cloth is made "Ironclad" and then guaranteed by three actual guarantees; one on the bolt goods to protect the garment manufacturer and two furnished the garment maker to place in the finished garment, to guarantee the cloth to the wearer.

This khaki material is usually sold in bulk to makers of uniforms, pants, jumpers, overalls, coveralls, sport clothes, etc. Some of the brands obtainable are Ironclad Dreadnought Twills, Artillery Cloth, Rough Rider Special, Volunteer, Infantry Cloth, and a special overall cloth made to be manufactured into working clothes for women and known

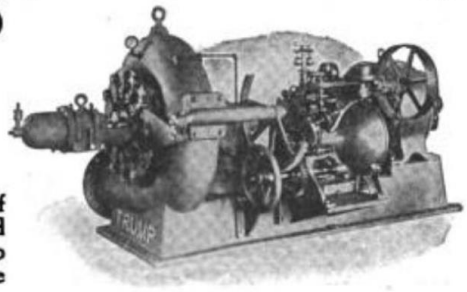
TRUMP TURBINES

EFFICIENCY— DURABILITY— DESIGN

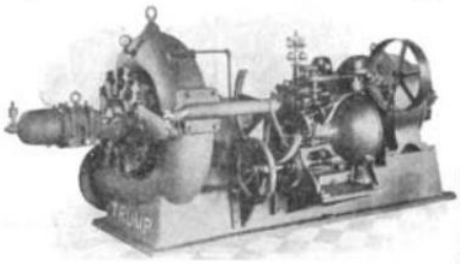
are combined in TRUMP TURBINES for the development of

Water Power

With an experience of 42 years behind the construction of Trump machinery places us in a position to give advice based upon sound practical experience. Trump Turbines built to suit the conditions, both horizontal and vertical. Let us have your inquiries.



THE TRUMP MFG. COMPANY, 1113 Greenmount Ave., Springfield, Ohio



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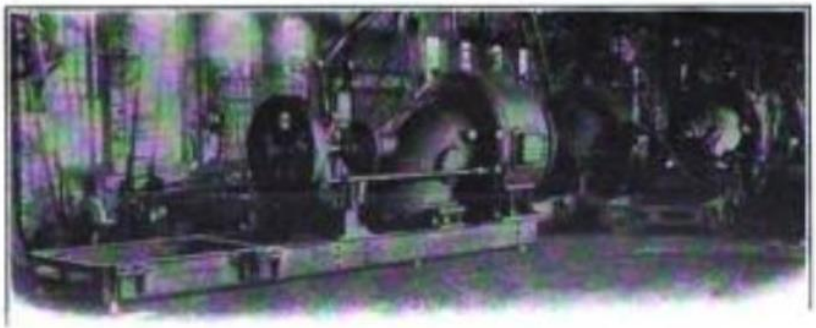
THE TRUMP MFG. COMPANY, Greenmount Ave., Springfield, Ohio

TRUMP TURBINES

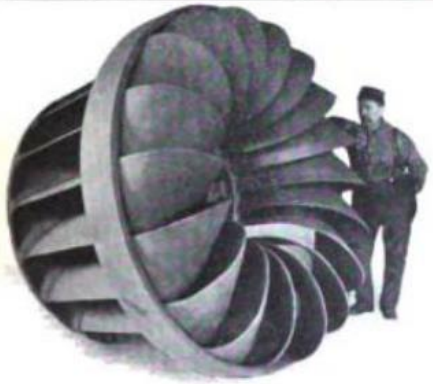
For Modern Water Power Development



Ask for Catalog

THE TRUMP MFG. CO.

Greenmount Ave. - SPRINGFIELD, OHIO, U.S.A.



TRUMP HYDRAULIC TURBINES

Backed by over 40 years' experience in the design and manufacture of water power equipment

TRUMP Turbines are built in all sizes, types and capacities

Send for Our Printed Matter

THE TRUMP MFG CO., Greenmount Ave. SPRINGFIELD, OHIO, U.S.A.

Single Horizontal Trump Turbine.

In selecting a turbine water-wheel there are a number of important features to be taken in consideration, apd the Trump Company, hydraulic engineer, of Springfield, Ohio, states that if the manufacturer or engineer who contemplates the purchase of a water-wheel will only use a little judgment before he decides on the

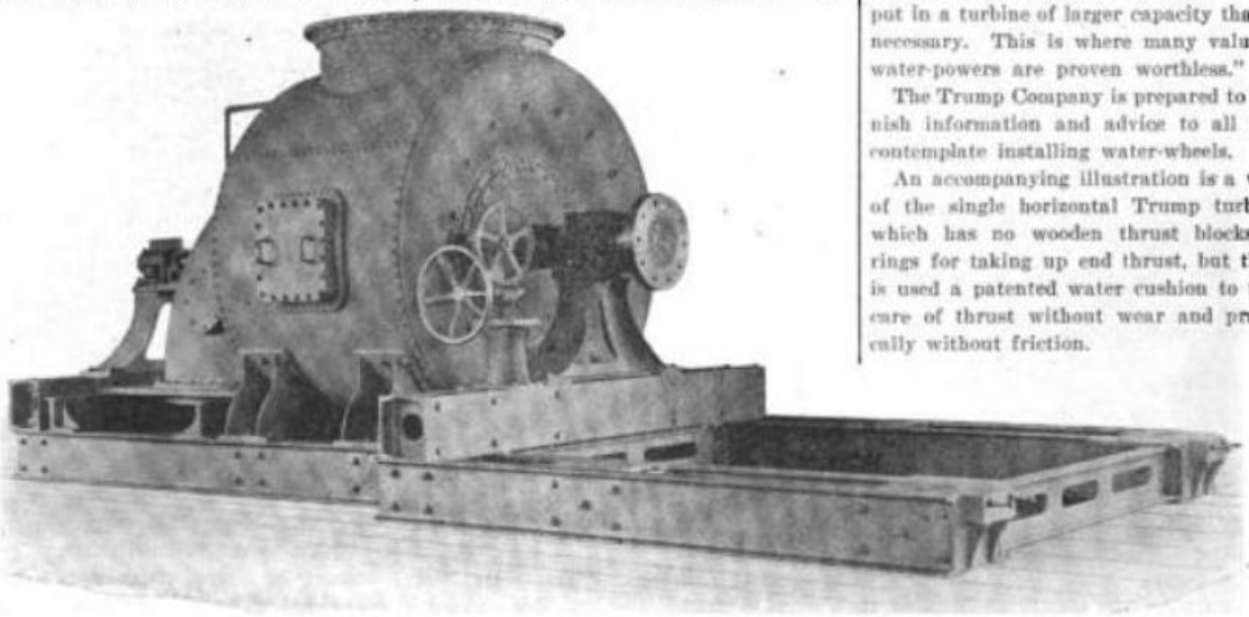
and get, say, a certain number of revolutions, you cannot get any higher speed on this same wheel unless its diameter is reduced at this same point, and then your wheel is choked. Keep your eye on the high-speed fellow.

"In some instances an attempt is made to crowd more water on the turbine than can be discharged through a hole, where

"There is another tendency with parties who develop water-power, and that is, to try to get something for nothing. Never put in a turbine of larger capacity than is necessary. This is where many valuable water-powers are proven worthless."

The Trump Company is prepared to furnish information and advice to all who contemplate installing water-wheels.

An accompanying illustration is a view of the single horizontal Trump turbine, which has no wooden thrust blocks or rings for taking up end thrust, but there is used a patented water cushion to take care of thrust without wear and practically without friction.



SINGLE HORIZONTAL TRUMP TURBINE

New Method of Driving Cupola Blowers.

It has been the custom for many years to think that the fan blower for the cupola must be driven by a belt from a steam

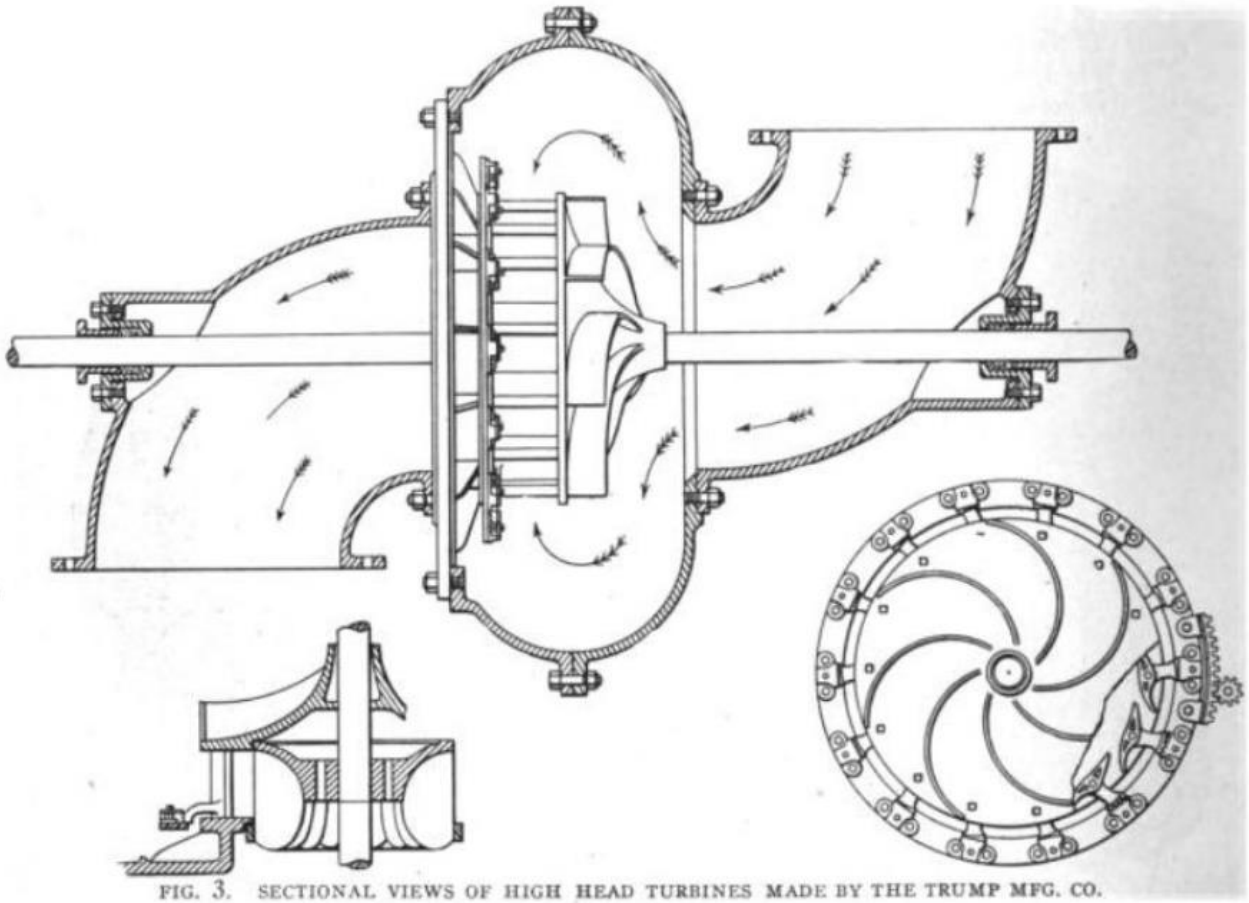


FIG. 3. SECTIONAL VIEWS OF HIGH HEAD TURBINES MADE BY THE TRUMP MFG. CO.